

MATH+ v5  
2020-07-14

## TO CONTROL INFLAMMATION & EXCESS CLOTTING

In all COVID-19 hospitalized patients, the therapeutic focus must be placed on early intervention utilizing powerful, evidence-based therapies to counteract:

- The overwhelming and damaging inflammatory response
- The systemic and severe hyper-coagulable state causing organ damage

By initiating the protocol soon after a patient meets criteria for oxygen supplementation, the need for mechanical ventilators and ICU beds will decrease dramatically.

### MATH+ PROTOCOL

[Only for use in hospitals in the treatment of COVID-19]

#### 1. Methylprednisolone [Intravenous]

- A. Mild hypoxia (<4L): 40 mg daily until off oxygen
- B. Moderate-severe illness: 80 mg bolus, then 20mg q6h IV push for 7 days\*
  - Alternate: 40 mg q12h for 7 days\*
- Day 8: Switch to oral prednisone, taper over 6 days

\*Consider higher doses for patients with non-improving ARDS/oxygenation and/or with persistent, rising, or severely elevated inflammatory markers (cytokine storm), i.e. 60–125 mg q6h–q8h, or 1,000 mg/day for 3 days

#### 2. Ascorbic Acid [High Dose Infusion]

- 3 grams /100 ml q6h
- Continue for a total of 7 days or until discharged

q6h/q12h = every 6/12 hours

1 mg Heparin = 500 int. units (IU)

CrCl = Creatinine Clearance (C<sub>r</sub>)

#### 3. Thiamine

- 200 mg IV q12h until discharged

#### 4. Heparin [Low Molecular Weight Heparin / LMWH]

- A. Stable patient on medical floor/ward: 0.5 mg/kg q12h; if CrCl ≤ 30 ml/min, give once a day
- B. Critically ill or ICU patient: 1mg/kg q12h unless contraindicated, dose adjust for CrCl 15–30 ml/min
  - If CrCl ≤ 15 ml/min, use unfractionated heparin [UFH]
  - Monitor antifactor-Xa activity, target range is 0.6–1.1 units/ml
- Continue until discharged

#### 5. PLUS optional co-interventions: Melatonin (6–12 mg at night), Zinc (75–100 mg/day), Vitamin D3 (2,000–4,000 units/day), Statin (Atorvastatin 40–80 mg/day preferred), Famotidine (40 mg/day), and Magnesium (2g IV in ICU patients only, target Mg level between 2.0–2.4 mmol/l).

## TREATMENT OF LOW OXYGEN

- If patient has low oxygen saturation on nasal cannula, initiate heated high flow nasal cannula.
- Do not hesitate to increase flow limits as needed.
- Avoid early intubation that is based solely on oxygen requirements. Allow “permissive hypoxemia” as tolerated.
- Intubate only if patient demonstrates excessive work of breathing.
- Utilize “prone positioning” to help improve oxygen saturation.

For updates, references and more information please see

[www.covid19criticalcare.com](http://www.covid19criticalcare.com) | [www.flccc.net](http://www.flccc.net)



## ABOUT THE MATH+ HOSPITAL TREATMENT PROTOCOL FOR COVID-19

Our **MATH+** protocol is designed for hospitalized patients, to counter the body's overwhelming inflammatory response to the SARS-CoV-2 virus. The protocol is based on numerous medical journal publications over decades. It is the hyper-inflammation, not the virus itself, that damages the lungs and other organs and ultimately causes death in COVID-19. We have found the **MATH+** protocol to be a highly effective combination therapy in controlling this extreme inflammatory response.

The steroid **Methylprednisolone** is a key component, increasing numbers of studies (see <https://flccc.net/medical-evidence>) show its profound effectiveness in COVID-19, which is made more potent when administered intravenously with high doses of the antioxidant **Ascorbic acid** given that the two medicines have multiple synergistic physiologic effects. **Thiamine** is given to optimize cellular oxygen utilization and energy consumption, protecting the heart, brain, and immune system. The anticoagulant **Heparin** is important for preventing and dissolving

blood clots that appear with a very high frequency in patients not given blood thinners. The **+** sign indicates several important co-interventions that have strong physiologic rationale and an excellent safety profile. It also indicates that we plan to adapt the protocol as our insights and the published medical evidence evolve.

Timing is a critical factor in the successful treatment of COVID-19. Patients must go to the hospital as soon as they experience difficulty breathing or have a low oxygen level. The **MATH+** protocol then should be administered soon after a patient meets criteria for oxygen supplementation (within the first hours after arrival in the hospital), in order to achieve maximal efficacy as delayed therapy has led to complications such as the need for mechanical ventilation.

If administered early, this formula of FDA-approved, safe, inexpensive, and readily available drugs can eliminate the need for ICU beds and mechanical ventilators and return patients to health.

### DISCLAIMER

This protocol is solely for educational purposes regarding potentially beneficial therapies for COVID-19. Never disregard professional medical advice because of something you have read on our website and releases. It is not intended to be a substitute for professional medical advice, diagnosis, or treatment in regards to any patient. Treatment for an individual patient should rely on the judgement of your physician or other qualified health provider. Always seek their advice with any questions you may have regarding your health or medical condition.

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